Student Name:
School Name:
Teacher/Class:

# Montana Comprehensive Assessment System (MontCAS, Phase 2 CRT)

GRADE 10 COMMON RELEASED ITEMS Spring 2007





OFFICE OF PUBLIC INSTRUCTION

#### **General Directions**

This test contains six sessions: three in reading and three in mathematics. The sessions are made up of multiple-choice questions and questions for which you must show your work or write out your answers. Write your answers to all of the questions in your Student Response Booklet. For the reading parts of the test, read each selection before answering the questions.

For each multiple-choice question, choose the best answer. Fill in the bubble in your Student Response Booklet that corresponds to your answer choice for that question.

Some questions ask you to show your work or to write out your answers. Write your answers to these questions in the spaces provided in your Student Response Booklet.

Your answers must fit in the spaces provided. Any part of an answer outside the box might not be scored.

Be sure to answer all parts of each question, and to answer completely. For example, if a question asks you to explain your reasoning or show your work, be sure to do so. You can receive points for a partially correct answer, so try to answer every question.

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### Reading Session 1

This test session includes reading selections and multiple-choice questions. After you read each selection, answer the questions about it in the spaces provided in your Student Response Booklet. You may not use a dictionary or any other reference tool during this session.

Andy Rooney, who appears on the television show Sixty Minutes, is known for his satirical views on everyday topics, including this look at the way people wrap and protect things. Read the passage and then answer the questions that follow.

#### Wrappings

Andy Rooney

Depending on what mood I'm in, I find it either irritating, funny or civilized when I think about how we protect protective coverings in this country.

When I come home from the grocery store and start to unpack, I am always unfavorably impressed with the layers of protective or decorative wrappings we cover our food with.

There is hardly anything we buy that doesn't come in at least two wrappings, and then several of them are assembled by the cashier at the checkout counter and put into a small bag. Then several of the small bags are grouped together and put into a big bag. If you have several big bags with small bags in them, they give you a cardboard box to put the packages-in-the-little-bags-in-the-big-bags in.

A lot of things we buy wouldn't really need any protective wrapping at all. The skin of an orange protects an orange pretty well for most of its natural life, but we aren't satisfied with what nature has given it. We wrap ten of them in plastic or put them in a net bag, and we put the plastic bag in a paper bag. The orange inside the skin, inside the plastic which is in a paper bag, must wonder where it is.

A box of cookies or crackers often has waxed paper next to the cookies, a cardboard box holding the cookies and then waxed paper and a decorative wrapping around the cardboard box. What seems to be called for here is some stiff, decorative waxed paper.

We have always wrapped our cars in an incredible number of protective layers. We put fenders over the wheels to protect ourselves from flying dirt. Then we put bumpers front and back to protect the fenders. We proceed from there to put chrome on the bumpers to protect them from rust, and we undercoat the fenders to protect *them* from the dirt they're protecting us from.

We paint the car to protect the metal, wax the paint to protect that and then we build a two-car garage to protect the whole thing. If it was a child, it would be spoiled.

I'm laughing, but I'm a protector of things myself. I use wood preserver before I paint lumber, and when I buy a raincoat I always spray it with Scotchgard or some other silicone water resister. Over the years, I'll bet I've spent more on Scotchgard than I have on raincoats.

A good book is designed with a hard cover to protect its contents. The hard cover is protected from dirt and abuse by a dust jacket. A lot of people who are very careful with books cover the dust jacket with a plastic cover of its own.

A relative of ours bought a new couch recently because she liked the fabric it was covered with. She liked it so much she didn't want it to get dirty, so she bought a slipcover to put over it and she laid little oblong pieces of cloth over the arms where the wear is heaviest to protect the slipcover. She called them antimacassars.\*

We may never again see the fabric she's protecting.

### Mark your answers to questions 1 through 5 in the section marked "Reading—Session 1" in your Student Response Booklet.

- 1. Why does the author **most likely** conclude paragraphs 3 and 4 by repeating phrases with the words "in" and "inside"?
  - A. to emphasize how many layers of wrappings are used
  - B. to exaggerate how many wrappings are used
  - C. to create sympathy for the objects that are wrapped
  - D. to give human feelings to the objects that are wrapped
- 2. Which statement is the **strongest** argument against the author's suggestion that cars are overwrapped?
  - A. Cars require additional protection for popularity.
  - B. Cars require additional protection for safety.
  - C. The protective layers make cars more attractive.
  - D. The protective layers make cars more valuable.

- 3. Why does the author write, "I'm laughing, but I'm a protector of things myself"?
  - A. to serve as a positive example
  - B. to show he has a sense of humor
  - C. to show that this tendency is a common human trait
  - D. to introduce a valid reason for adding protective layers
- 4. In paragraphs 10 and 11, what is **most** ironic about the actions of the author's relative?
  - A. She wants to protect the couch from dirt.
  - B. She bought the couch because she liked the fabric.
  - C. She bought the couch for its fabric, and then covered it up.
  - D. She wants to protect the arms of the couch, but they become worn.
- 5. The author's **main** purpose is to
  - A. warn people about the waste of resources.
  - B. inspire people to complain to food companies.
  - C. tell people how to best transport food.
  - D. entertain people with an observation about society.

<sup>\*</sup> antimacassars: chair covers

This information from a Web site provides important information about the cash rebates offered by many manufacturers. Read the passage and then answer the questions that follow.

#### Taking the "Bait" Out of Rebates

Rebate offers can be irresistible to consumers, slashing the price of consumer goods at the time of purchase or promising partial or full <u>reimbursements</u> after the purchase.

2 Some manufacturers and retailers <u>entice</u> shoppers with instant cash rebates that can be redeemed immediately at the checkout counter.

But most rebates are of the mail-in variety. They require consumers to pay the full cost of an item at the time of purchase, then to send documentation to the manufacturer or retailer to receive a rebate by mail.

The documentation required generally includes the original sales receipt, UPC code, rebate slip, and the customer's name, address and telephone number. In most cases, this paperwork must be sent to the manufacturer or retailer within 30 days of the purchase. Consumers generally receive their rebates up to 12 weeks later.

But the Federal Trade Commission cautions consumers against being "baited" by rebates that never arrive or arrive far later than promised. By law, companies are required to send rebates within the time frame promised, or if no time is specified, within a "reasonable" time. "Reasonable" in this case often is interpreted as within 30 days.

When purchasing a product that offers a rebate, the FTC encourages consumers to:

- Follow the instructions on the rebate form and enclose all required documentation in the envelope when filing for a rebate.
- Make a copy of all paperwork to be mailed when applying for a rebate. It's the only record a consumer will have of the transaction if anything goes wrong.
- Contact the company if the rebate doesn't arrive within the time promised.
- If the rebate never arrives or arrives late, file a complaint with the Federal Trade Commission, the state Attorney General or the local Better Business Bureau.

The FTC works for the consumer to prevent fraudulent, deceptive and unfair business practices in the marketplace and to provide information to help consumers spot, stop, and avoid them. To file a complaint or to get free information on consumer issues, visit www.ftc.gov or call toll-free, 1-877-FTC-HELP (1-877-382-4357); TTY: 1-866-653-4261. The FTC enters Internet, telemarketing, identity theft, and other fraud-related complaints into Consumer Sentinel, a secure, online database available to hundreds of civil and criminal law enforcement agencies in the U.S. and abroad.

### Mark your answers to questions 6 through 10 in the section marked "Reading—Session 1" in your Student Response Booklet.

- 6. In "Taking the 'Bait' Out of Rebates," the word "Bait" suggests that rebates
  - A. may be offered on worthless products.
  - B. may offer instant refunds to consumers.
  - C. are sometimes used to attract uninformed consumers.
  - D. are an illegal way to save money on purchases.
- 7. In the first paragraph, the word reimbursements refers to
  - A. free gifts.
  - B. future credits.
  - C. reduced prices.
  - D. returned payments.
- 8. In paragraph 2, what does the word <u>entice</u> mean?
  - A. to warn
  - B. to tempt
  - C. to fool
  - D. to inform

- 9. According to the passage, which action is against the law for companies offering rebates?
  - A. requesting that consumers pay full price at time of purchase to receive the rebate
  - B. requiring that consumers mail in documentation to receive the rebate
  - C. sending the rebate after the time period in which it was promised
  - D. losing the documentation a consumer submitted for the rebate
- 10. What should a consumer do **next** after gathering all of the documentation required for a rebate?
  - A. Enclose it in an envelope.
  - B. Make copies for records.
  - C. Mail it to the company offering the rebate.
  - D. Read the instructions on the rebate form.

### Reading Session 2

This test session includes a reading selection and multiple-choice questions. After you read the selection, answer the questions about it in the spaces provided in your Student Response Booklet. You may not use a dictionary or any other reference tool during this session.

This information is about fishing and staying in Great Falls, Montana. Look over the information and then read the questions. Find the answers to the questions that follow.

### **Great Falls Lodging, Camping & Fishing**

#### **Lodging Legend**

Price Range: (\$) Under \$40; (\$\$) \$40-\$60; (\$\$\$) \$60-\$80; (\$\$\$\$) Over \$80. Pets [check with the motel for specific policies] (P), Dining (D), Lounge (L), Disabled Access (DA), Bed & Breakfast (BB), Private Bath (PB), Full Breakfast (FB), Cont. Breakfast (CB), Guest Ranch (GR), Indoor/Outdoor Pool (IP)/(OP), Hot Tub/Sauna (HT) (S), Refrigerator (R), Microwave (M), Kitchenette (K). All Montana area codes are 406.

Hotel	Phone	Number Rooms	Price Range	Break- fast	Pool/ Hot Tub Sauna	Non Smoke Rooms	Other Amenities	Credit Cards	Map Locator Number
Conrad Motel	278-7544	23	\$			Yes	Р	Major	22
Northgate Motel	278-3516	5	\$			Yes	Р	Major	22
Super 8 Motel	278-7676	49	\$\$			Yes	P/D/L/DA	Major	22
Glocca Morra Inn & Cafe	335-2850								23
Bob & Ethel's Ramble Inn	264-9435								24
Wagons West Motel & Restaurant	562-3295	14	\$\$			Yes	P/D/L	V/M/D	26
Bunkhouse Inn	562-3387								26
Sun Canyon Lodge	562-3654								26
Bella Vista Motel	466-5711	14	\$\$			Yes	K/P/M/F/D	Major	28
Big Sky Motel	466-5318	13	\$\$			Yes	K/P	Major	28
Stage Stop Best Western	466-5900	43	\$\$\$	CB	IP	Yes	M/DA	Major	28
Western Star Motel	466-5737	7	\$			Yes	DA	V/M	28
Evergreen Motel	452-0312								

Fishery	Map Numbers	Brook Trout	Mountain	Whitefish	Lake Whitefish	<b>Golden Trout</b>	<b>Cutthroat Trout</b>	<b>Brown Trout</b>	Rainbow Trout	Kokanee Salmon	Bull Trout	Lake Trout Arctic	<b>Grayling Burbot</b>	Largemouth Bass	Smallmouth Bass	Walleye Sauger	Northern Pike	Shovelnose	Sturgeon	Channel Catfish	Yellow Perch	Crappie	Paddlefish	Vehicle Access	Campgrounds	Toilets Docks	Boat Ramps	Motor	Restrictions
North Fork Sun River	189							•																					
South Fork Sun River	190					•		•																					
Gibson Reservoir	191							•																•	•	•		•	
Wood Lake	192							•																•	•	•		•	_
Nilan Reservoir	193							•																•	•	•		•	
Willow Creek Reservoir	194							•																•	•	•		•	
Dearborn River	195		•				•	•																•					
Bean Lake	196							•																•	•	•		•	
Sun River	197		•				•	•																•	•	•			
Teton River	198	•	•			•	•	•																•	•	•			
Split Rock Lake	199																	•						•					
Pishkun Reservoir	200							•										•			•			•	•	•		•	
Eureka Reservoir	201							•																•	•	•		•	
Bynum Reservoir	202															•					•			•	•	•		•	
Lake Frances	203															•		•						•	•	•		•	
Tiber Reservoir	204							•			•		•			•		•			•			•	•	•	Ш	•	
Missouri River	205		•				•	•															•	•	•	•		•	
Kipps Lake	206	•						•																					
Mission Lake	207							•																					
Wadsworth Pond	208													•		•					•			•					
Priest Butte Lake	209																												

Campsite Directions	Season	Camping	Trailers	Toilets	Water	Boat Launch	Fishing	Swimming	Trails	Stay Limit	Fee
238•Home Gulch FS 20 mi. NW of Augusta on Sun River Canyon Rd.•2 mi. W on Forest Rd. 108	Summer/Fall	12	16'	D		В		•	•	14	•
239•Mortimer Gulch FS 20 mi. NW of Augusta on Sun River Canyon Rd. •4 mi. W on Forest Rd. 1082•3 mi. N on Forest Rd. 8984	Summer/Fall	28	22'	•	•	В	•	•	•	14	•
240•South Fork FS 31 mi. W of Augusta on Benchmark Rd. 235 (wilderness access)	Summer/Fall	7	22'	D	•		•		•	14	•
241•Benchmark FS 14 mi. W of Augusta on Cty. Rd. 235•16 mi. SW on Forest Rd. 235 (wilderness access)	Summer/Fall	25	22'	•	•		•		•	14	
242•Wood Lake FS 24 mi. W of Augusta on Benchmark Rd. 235	Summer	9	22'	•	•		•	•	•	14	•
243•West Fork FS 6 mi. N of Choteau on US 89•33 mi. NW on Cty. Rd. 144 (wilderness access)	Summer	6		•	•		•		•	14	
244•Cave Mountain FS 5 mi. N of Choteau on US 89•23 mi. W on Forest Rd. 144 (wilderness access)	Summer	14	22'	•		•		•	•	14	•
245•Lake Elwell Willow Creek USBR 17 mi. S of Chester on Rt. 223•7 mi. W on Cty. Rd. •(public marina and RV park)•All Year	•		D		С	•			14		
246•Lake Elwell North Bootlegger USBR 13 mi. S of Chester on Rt. 223•7 mi. W on Cty. Rd.•(public marina and RV park)	All Year		•	D		С	•			14	
247•Lake Elwell South Bootlegger USBR 15 mi. S of Chester on Rt. 223•7 mi. W on Cty. Rd.•(public marina and RV park)	All Year	<	•	D		С	•			14	
248•Lake Elwell VFW Campground USBR 16 mi. S of Chester on Rt. 223•7 mi. W on Cty. Rd.•(public marina and RV park)	All Year	•	•	D		С	•			14	
249•Lake Elwell Island Area USBR 12 mi. S of Chester on Rt. 223•7 mi. W on Cty. Rd.•(public marina and RV park)	All Year	•	•	D		С	•			14	
250•Lake Elwell Sanford Park USBR 14 mi. S of Chester on Rt. 223•7 mi. W on Cty. Rd.•(public marina and RV park)	All Year		•	D	•	В				14	
251•Gary Smith Memorial 5th Ave. NW in Cut Bank 5/1-10/1	5	30'		•							

#### Agency

FS—U.S.D.A. Forest Service FWP—Montana Fish, Wildlife & Parks NPS—National Park Service BLM—U.S. Bureau of Land Management USBR—U.S. Bureau of Reclamation CE—Corps of Engineers

#### Camping

Camping is allowed at this site. Number indicates camping spaces available. H—Hard sided units only, no tents

#### **Trailers**

Trailer units allowed. Number indicates maximum length.

#### **Toilets**

Toilets on site. D—Disabled access

#### Water

Drinkable water on site.

#### **Fishing**

Visitors may fish on site.

#### Boat

Type of boat ramp on site:

A—Hand launch

B—4-wheel drive with trailer

C—2-wheel drive with trailer

#### Swimming

Designated swimming areas on site

#### **Trails**

Trails on site

B-Backpacking N-Nature/Interpretive

#### Stay Limit

Maximum length of stay in days

#### Fee

Camping and/or day-use fee



### Mark your answers to questions 11 through 17 in the section marked "Reading—Session 2" in your Student Response Booklet.

- 11. In the campsite directions, what does FS stand for in "Home Gulch FS"?
  - A. Montana Fish, Wildlife, and Parks
  - B. U.S.D.A. Forest Service
  - C. National Park Service
  - D. Corps of Engineers
- 12. According to the fishery chart, which type of fish is found in the Teton River?
  - A. Whitefish
  - B. Golden Trout
  - C. Kokanee Salmon
  - D. Northern Pike
- 13. If you are traveling with a dog **and** want to save money, which motel best fits your needs?
  - A. Big Sky Motel
  - B. Wagons West Motel
  - C. Western Star Motel
  - D. Northgate Motel
- 14. Which campsite is **best** for fall fishing?
  - A. Wood Lake
  - B. West Fork
  - C. Cave Mountain
  - D. Lake Elwell North Bootlegger

- 15. Of the hotels listed, the Stage Stop Best Western is the only one that has
  - A. a full breakfast.
  - B. an indoor pool.
  - C. a kitchenette.
  - D. a sauna.
- 16. From the Lodging Legend, what is the most likely reason that blank spaces appear in the columns labeled "Number Rooms" and "Price Range"?
  - A. The motels have closed.
  - B. The motels did not provide information.
  - C. The motels only have a few rooms available.
  - D. The motels do not appear on the map.
- 17. Which type of fish is found in the fewest locations?
  - A. Golden Trout
  - B. Walleye Sauger
  - C. Shovelnose
  - D. Yellow Perch

## Reading Session 2

This test session includes a reading selection and multiple-choice questions, and a question for which you must write out your answer. After you read the selection, answer the questions about it in the spaces provided in your Student Response Booklet. You may not use a dictionary or any other reference tool during this session.

Totem poles represent an important part of the Northwest Coast Indians' culture. Read the following article about this fascinating art form and then answer the questions that follow.

#### **Totem Pole Carvers: Yesterday and Today**

Toni A. Watson

A trunk of western red cedar and an adz were all an artist needed to make a totem pole two hundred years ago. It is much the same today.

The totem pole, more than anything else, is the trademark of the Northwest Coast Indians. Only wealthy and respected families were allowed to own a totem pole. When a chief needed a pole, he commissioned a carver to make it. Some poles took a year or more to finish, and the carver was well paid in blankets, food, and other valuables. The owner of the pole also had to feed and house the carver while he worked. Trained from childhood. skilled carvers could become very wealthy.

Before a carver began his work, an elder taught him about the ancestors and crests, or symbols, of the family that wanted the totem pole. The design itself was always left to the carver.

The carver worked in secret, sometimes behind a screen, because the symbols used were the property

of the owner. When the owner was satisfied with the symbols the artist had chosen, the carver drew in the design with charcoal. After adzing and splitting away the wood to give form to the figures, he finished the final details and shaping with curved knives.

The carver also was responsible for painting the pole, although not all poles were painted. The parts painted and the choice of colors depended on the tradition of the area. Red, black, and green were the most commonly used colors.

Totem poles are the tallest wood carvings in the world. In the nineteenth century, the

tallest poles were about 60 feet high. In earlier days, sometimes hundreds of people hauled on the ropes, raising a pole to its upright position. Modern pole-raising equipment (block and tackle and mechanical cranes) has enabled longer poles to be carved. In the village of Alert Bay, on Vancouver Island, the world's tallest totem pole soars an

Please go on to the next page.

astounding 173 feet into the sky.

Several factors, including the 1884 ban on potlatching, caused a decline in the carving of new totem poles. Disease and war had drastically reduced the population, and carvers began dying without passing their knowledge on to the next generation. Totem poles were felled, sold, or even cut up for firewood.

Some southern Kwakiutl people continued to potlatch in secret. A few carvers continued to create masks, dishes, and other smaller items. The best-known carver was Charlie James, born in 1867, who taught his skills to his stepson, Mungo Martin.

In 1950, a major renewal of the art began with a totem pole restoration project at the University of British Columbia Museum of Anthropology. The museum hired Martin to reproduce old and decaying Kwakiutl poles. This thread of continuity was largely responsible for pulling West Coast Indian art back from the brink of extinction. Martin continued this work at the Provincial Museum in Victoria, working with two other southern Kwakiutl carvers, Henry Hunt and his young son, Tony.

Martin established the Thunderbird Park carving program in the early 1950s. As the museum states, "Under his direction, the carving program quickly proved to be of wider importance than anyone had dreamed possible. Initially planned to last three years, it endured more than thirty." Martin and his apprentices worked in an open building, on public view, and the carvers soon became one of the most popular features of the museum. Local residents and museum visitors would stop to watch them work, to ask questions, and to learn something of the ways of Indian people.

"Mungo's most important role was as a teacher. He realized he was one of the last knowledgeable totem carvers and was determined to pass his skills and experience on to young Indian artists. He succeeded well. Virtually all of the Indian artists practicing today owe some debt to Mungo Martin, either through working with him directly or through learning from one of his students."

Mungo Martin died in 1962, and his son-inlaw, Henry Hunt, was appointed chief carver at the museum, where he remained for fourteen years. The Hunt family tree includes twenty-two men and women from three generations who have practiced traditional arts in one form or another.

Traditionally, only men practiced woodworking, but today a few women also practice the art. Ellen Neel, Mungo Martin's niece, carved totem poles. (She died in 1966.) Other women carvers include Dorothy Horner, Myrtle Laidlaw, Sandra Westly, and Valerie Tait Stewart.

Many modern totem pole artists work by hand with chisels, knives, and adzes that they make themselves. They also may use chain saws for the initial shaping and rough cuts.

Several years ago, two young carvers, Steve Brown and Wayne Price, were reproducing an old pole for a family. The grandchildren of the original carver asked that the new pole be carved without power tools. Although skilled in the use of modern tools, the two carvers worked through the winter of 1985–86 "using only hand tools that we could see had been used by the original artist. We completed the work in five months."

It is not unusual for Nishga carver Norman Tait to include some secret detail in his work. One pole at the Museum of Anthropology in Vancouver carries a hidden message. Beneath the beak of Raven, Tait carved an inscription that will become visible only when the pole rots and the beak falls away—"long after I'm gone," Tait says.

Northwest Coast artists and carvers still receive good pay for their art. But even more important than the wages they earn is the pride these artists are restoring in their people. According to Nuuchah-nulth carvers Art Thompson and Tim Paul, "We wanted to carve a pole that would speak of our people's legends and traditions yet be our own contemporary statement." As totem poles make a comeback, the proud heritage of the Northwest Coast Indians returns with them.

### Mark your answers to questions 18 through 28 in the section marked "Reading—Session 3" in your Student Response Booklet.

- 18. Which sentence **best** summarizes the meaning of the first paragraph?
  - A. Modern tools have made it easier to make totem poles today.
  - B. Totem poles are made from trees that have survived for hundreds of years.
  - C. Totem poles are still made in nearly the same way they were made two hundred years ago.
  - D. Making totem poles requires more artistry today than it did two hundred years ago.
- 19. In paragraph 2, the word <u>commissioned</u> means
  - A. forced.
  - B. hired.
  - C. taught.
  - D. caught.
- 20. When making a totem pole, which activity is done first?
  - A. raising the pole
  - B. painting the pole
  - C. making charcoal drawings on the pole
  - D. designing symbols for the pole

- 21. Based on the article, why are the symbols carved into a totem pole important to the family that commissioned the totem pole?
  - A. They represent the family's history.
  - B. They reveal the family's wealth.
  - C. They reveal the family's secrets.
  - D. They beautify the family's property.
- 22. According to this article, all of these factors contributed to the decline of totem pole carving **except** the
  - A. banning of potlatching.
  - B. reduction in population.
  - C. scarcity of western red cedars.
  - D. shortage of people with carving skills.
- 23. In paragraph 9, the phrase "thread of continuity"
  - A. refers to the survival of the potlatch custom among some Kwakiutl people.
  - B. acknowledges Mungo Martin's role in the survival of Northwest Coast Indian art.
  - C. describes the University of British Columbia Museum of Anthropology.
  - D. explains how three generations of the Hunt family were involved in traditional arts.

- 24. Which statement **best** explains why the Thunderbird Park carving program lasted much longer than expected?
  - A. Public interest in the work of the program created a demand for it.
  - B. Mungo Martin continued to work in the program until his death in 1962.
  - C. Norman Tait created new interest by including secret details in the totem poles.
  - D. Modern pole-raising equipment enabled longer poles to be displayed.
- 25. The author's attitude toward today's totem pole carvers is **best** described as
  - A. critical.
  - B. neutral.
  - C. puzzled.
  - D. respectful.
- 26. The information in the article is **mostly** organized
  - A. by cause and effect.
  - B. from general to specific.
  - C. in chronological order.
  - D. from most to least important.

- 27. What is the **main** purpose of the photograph of the totem pole?
  - A. It shows how a totem pole includes different symbolic figures.
  - B. It clarifies the significance of the figures on a totem pole.
  - C. It shows how a carver may include a secret detail on a totem pole.
  - D. It clarifies why in the past most totem poles were carved by men.
- 28. Which of these sentences from the article states an **opinion**?
  - A. "Totem poles are the tallest wood carvings in the world."
  - B. "Some southern Kwakiutl people continued to potlatch in secret."
  - C. "This thread of continuity was largely responsible for pulling West Coast Indian art back from the brink of extinction."
  - D. "Martin established the Thunderbird Park carving program in the early 1950s."

#### Write your answer to question 29 in the space provided for it in your Student Response Booklet.

29. Explain why totem poles continue to be an important part of Northwest Coast Indian culture. Use information from the article to support your answer.

NO TEST MATERIAL ON THIS PAGE

# Mathematics Session 1 (Calculator)

This test session includes multiple-choice questions. You may use a calculator during this session.

Mark your answers to questions 1 through 11 in the section marked "Mathematics—Session 1 (Calculator)" in your Student Response Booklet.

- 1. A rectangular prism has
  - a volume of 726 cubic inches,
  - a square base, and
  - a height of 6 inches.

A cylinder is placed inside the prism. What is the greatest diameter this cylinder could have?

- A. 5.5 inches
- B. 9 inches
- C. 11 inches
- D. 20.2 inches
- 2. Quadrilateral ABCD has line symmetry across its diagonal  $\overline{AC}$ . Which statement must be true?
  - A. The lengths of  $\overline{AD}$  and  $\overline{BC}$  are equal.
  - B. Angle *DAB* is congruent to angle *DCB*.
  - C. Quadrilateral *ABCD* has rotational symmetry.
  - D. Triangle ADC is congruent to triangle ABC.
- 3. Suppose that  $\Delta WXY$  is congruent to  $\Delta PQR$ . If  $\angle W$  is congruent to  $\angle X$ , which statement must be true?

A. 
$$\angle P \cong \angle Q$$

B. 
$$\angle P \cong \angle R$$

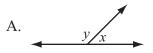
C. 
$$\angle W \cong \angle R$$

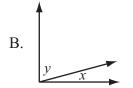
D. 
$$\angle W \cong \angle Y$$

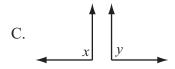
4. Courtney wrote this statement on the board.

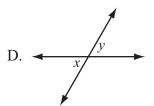
Adjacent angles are supplementary.

In which diagram do angles *x* and *y* provide a counterexample to Courtney's statement?



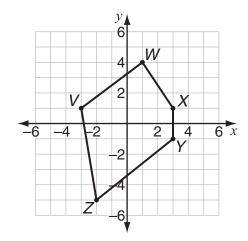






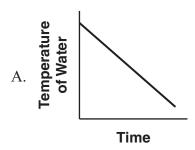
- 5. Which expression is equivalent to  $3d(d^2-3)$ ?
  - A.  $3d^3 6d$
  - B.  $3d^3 9d$
  - C.  $6d^2 9d$
  - D.  $3d^3 9$

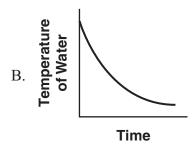
Use the pentagon below to answer question 6.

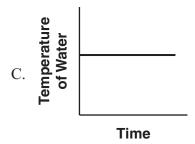


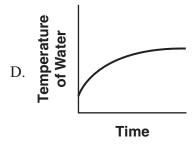
- 6. If pentagon VWXYZ is rotated 90° clockwise about the origin, what are the coordinates of the image of point Z?
  - A. (-3, 1)
  - B. (3, -1)
  - C. (5, -2)
  - D. (-5, 2)

7. Sarah measured the temperature of a cup of warm water as it cooled. She displayed her data in a graph and correctly concluded that the relationship between temperature and time is nonlinear. Which graph could be Sarah's?





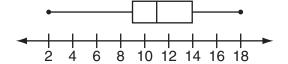




- 8. Two cylinders have the same height. The radius of cylinder A is 3 times the radius of cylinder B. How many times as great is the volume of cylinder A as the volume of cylinder B?
  - A. 3
  - B. 6
  - C. 9
  - D. 27
- 9. Which number has exactly five factors?
  - A. 10
  - B. 16
  - C. 25
  - D. 48

- 10. The length of a rectangle is 5 inches longer than its width. The width of the rectangle is *w* inches. Which expression should be used to find the area of the rectangle?
  - A. w + 5
  - B.  $w^2 + 5$
  - C.  $(w+5)^2$
  - D. w(w + 5)
- 11. The box-and-whisker plot below shows Robert's phone calls for one month.

#### Length of Robert's Phone Calls (in minutes)



Based on the plot, which statement about the length of a phone call that Robert made last month is most likely true?

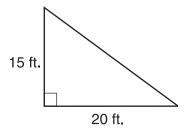
- A. It was 11 minutes long.
- B. It was 18 minutes long.
- C. It was between 2 and 8 minutes long.
- D. It was between 9 and 14 minutes long.

# Mathematics Session 2A (Calculator)

This test session includes multiple-choice questions. You may use a calculator during this session.

Mark your answers to questions 12 through 15 in the section marked "Mathematics—Session 2A (Calculator)" in your Student Response Booklet.

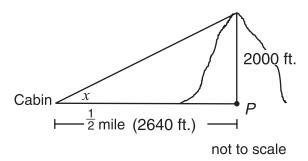
12. Haley is planning a garden shaped like a right triangle with the dimensions shown below.



How much fencing will she need to enclose the garden?

- A. 60 ft.
- B. 70 ft.
- C. 150 ft.
- D. 300 ft.
- 13. In one year, Montana farmers harvested 2,850,000 acres of spring wheat at an average yield of 23 bushels per acre. A bushel of wheat weighs an average of 51.9 pounds. Approximately how many tons of wheat (1 ton = 2,000 pounds) were harvested that year?
  - A. 3,000 tons
  - B. 74,000 tons
  - C. 1,701,000 tons
  - D. 2,387,000 tons

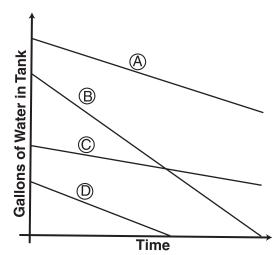
14. A cabin is  $\frac{1}{2}$  mile from point P. The top of the mountain is 2000 feet above point P as shown in the figure below.



Which equation could be solved to find the approximate angle, x, at which a person standing in front of the cabin would have to look up to see the top of the mountain?

- A.  $\tan x = \frac{2000}{2640}$
- B.  $\tan x = \frac{2640}{2000}$
- C.  $\sin x = \frac{2000}{2640}$
- D.  $\cos x = \frac{2640}{2000}$

15. Four water storage tanks were drained so that they could be cleaned. The graph below shows how much water was in each tank during the first five hours of the draining process.



Which tank lost the greatest number of gallons of water per hour?

- A. tank A
- B. tank B
- C. tank C
- D. tank D

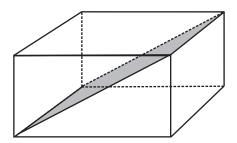
# Mathematics Session 2B (No Calculator)

This test session includes multiple-choice questions. You may NOT use a calculator during this session.

Mark your answers to questions 16 through 18 in the section marked "Mathematics—Session 2B (No Calculator)" in your Student Response Booklet.

- 16. The first term of a pattern is 7. Each term in the pattern is formed by subtracting 2 from the previous term. What is the fifth term of the pattern?
  - A. -1
  - В. –3
  - C. –8
  - D. -10
- 17. If  $3x^2 = 48$ , which integer could be a value of x?
  - A. -2
  - B. -4
  - C. 8
  - D. 16

18. A plane cuts through a rectangular prism as shown in the figure below.



Which of the following describes the shape created by the cross section?

- A. isosceles trapezoid
- B. rectangle
- C. trapezoid that is not isosceles
- D. parallelogram that is not a rectangle

# Mathematics Session 3 (No Calculator)

This test session includes multiple-choice questions and questions for which you must show your work or write out your answer. You may NOT use a calculator during this session.

Mark your answers to questions 19 through 30 in the section marked "Mathematics—Session 3 (No Calculator)" in your Student Response Booklet.

19. Gwen needs  $2\frac{1}{4}$  cups of flour to bake 3 dozen cookies. How much flour does Gwen need to bake 5 dozen cookies?

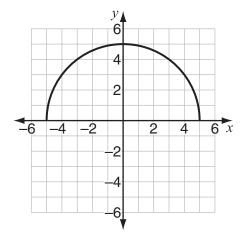
A. 
$$1\frac{7}{20}$$
 cups

B. 
$$3\frac{3}{4}$$
 cups

C. 
$$6\frac{3}{4}$$
 cups

D. 
$$11\frac{1}{4}$$
 cups

20. The graph of the equation  $y = \sqrt{25 - x^2}$  is shown below.



For which *x*-values do the *y*-values decrease the most?

B. from 
$$-1$$
 to  $0$ 

21. The equation below can be used to calculate the pressure, P, on a volume, V, of a particular gas at some temperature, T.

$$P = 0.4 \frac{(T + 273)}{V}$$

What is the value of P if T = 27 and V = 10?

22. Jupiter is approximately  $4.8 \times 10^8$  miles from the Sun. Suppose a meteor is halfway between Jupiter and the Sun. How many miles from the Sun is the meteor?

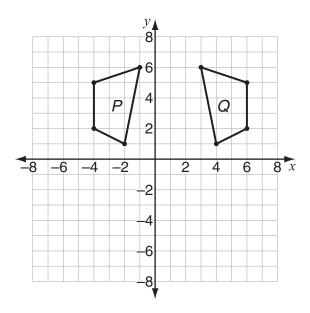
A. 
$$2.4 \times 10^8$$

B. 
$$4.8 \times 10^7$$

C. 
$$4.8 \times 10^4$$

D. 
$$2.4 \times 10^4$$

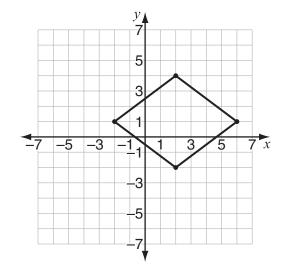
- 23. An Astronomical Unit (AU) is approximately 93 million miles. Mars is 1.524 AU from the Sun. Which of the following is the best estimate of the distance, in miles, from Mars to the Sun?
  - A. 60,000 miles
  - B. 140,000 miles
  - C. 60,000,000 miles
  - D. 140,000,000 miles
- 24. Figure *Q* below is the image of Figure *P* after a single reflection.



Over which line was Figure P reflected?

- A. *x*-axis
- B. y-axis
- C. x = 1
- D. y = 1

- 25. Ms. Gomes earns a free airplane flight after flying 25,000 miles. So far, she has flown 9,221 miles. After flying 2,800 miles on her next trip, which percent best estimates how many miles Ms. Gomes will have toward a free trip?
  - A. 35%
  - B. 40%
  - C. 50%
  - D. 65%
- 26. The quadrilateral below is a rhombus.



What is the perimeter of the rhombus?

- A. 5
- B. 16
- C. 20
- D. 24

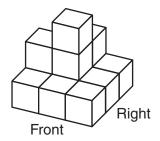
- 27. Number cubes have a number from 1 to 6 printed on each of their faces. What is the probability that, when two cubes are rolled, both cubes will land with an odd number facing up?
  - A.  $\frac{1}{36}$
  - B.  $\frac{1}{4}$
  - C.  $\frac{1}{2}$
  - D. 1
- 28. If 0 < a < b, what **must** be true about the quotient  $\frac{a+b}{a}$ ?
  - A. It is less than 1.
  - B. It is between 1 and 2.
  - C. It is between a and b.
  - D. It is greater than 2.
- 29. Water flows into a container at a constant rate. The equation below shows how the amount of water, *w*, in gallons, in the container relates to the amount of time, *t*, in minutes, since the water began to flow.

$$w = 4t + 10$$

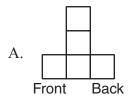
What does the 10 in the equation represent?

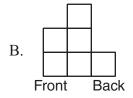
- A. the gallons of water already in the container
- B. the rate at which the water flows into the container
- C. the gallons of water needed to fill the container
- D. the minutes needed to fill the container

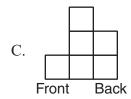
30. The diagram below shows a construction of cube blocks.

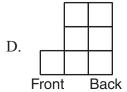


What is the view of the right side?









Write your answers to questions 31 through 33 in the spaces provided in your Student Response Booklet. Show all of your work.

#### 31. Evaluate:

$$5-2^3+7\times 2$$

- 32. Write an expression without parentheses that is equivalent to (3x-y)(4x+2y).
- 33. The table below shows data from seven university libraries.

Number of Volumes in Library	Number of Staff Members
9.5 million	600
3.5 million	275
2.75 million	225
7.5 million	550
2 million	150
3 million	250
2.5 million	250

- a. On the grid in your Student Response Booklet, construct a scatter plot showing the relationship between the number of volumes and the number of staff members in each library. Be sure to select appropriate scales and labels for the axes.
- b. On the scatter plot you drew in part a, draw an estimated line of best fit for the data.
- c. Based on the line of best fit you drew in part b, predict the number of staff members needed for a library with a collection of 5 million volumes. Show or explain how you found your answer.

#### **Acknowledgments**

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